



WATER DROPLETS FROM THE LAB

FACTS ABOUT WATER AND YOUR HEALTH

Amoeba naegleria fowleri

Effects: The amoebas cause primary amoebic meningoencephalitis, a rare disease that leads to inflammation of the brain and destruction of brain tissue.

Symptoms: Severe headache, high temperature, loss of coordination and possible a mild coma. Generally, if not diagnosed within 48 hours, the amoebas invade the brain and death usually occurs within a week to 10 days.

Treatment: A fungicide and a drug that penetrate the brain tissue and kill the amoebas.

Cases: Over 55 have been reported nationwide since 1965 with only one survivor, an 11 year old California girl.

Miscellaneous: The amoebas become active when the water temperature in lakes and streams reaches 82-86 degrees Fahrenheit. The amoebas live in the upper layer of sediment on the bottom of lakes and ponds and enters the body through the nose. Chances are 2.5 million to 1 of contracting the disease. Laboratories' studies have shown that *naegleria fowleri* is a normal inhabitant of many Florida lakes. The amoebas feed on bacteria, and consequently are found in greatest concentrations at the bottom of lakes with mud floors. They exist as a cyst when the water temperature drops below 82-86 degrees Fahrenheit and, conversely, excysts into an infectious trophozoite form when water temperatures increases and nutrient bacteria become more plentiful. The amoebas are infectious only when they are in the trophozoite form. Epidemiological evidence suggests that the risk of infection is greatest during the summer months when one swims along the bottom of mud-lined lakes and ponds. Three simple precautions can be taken to decrease the possibility of infection:

1. Wear nose clips.
2. Avoid swimming or diving along the bottom of mud-lined lakes and ponds.
3. Avoid swimming in lakes and ponds when the water temperature exceeds 82 degrees Fahrenheit.

Sources: Centers for disease Control, HRS Office of Entomology, American Public Health Assn., DEP
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